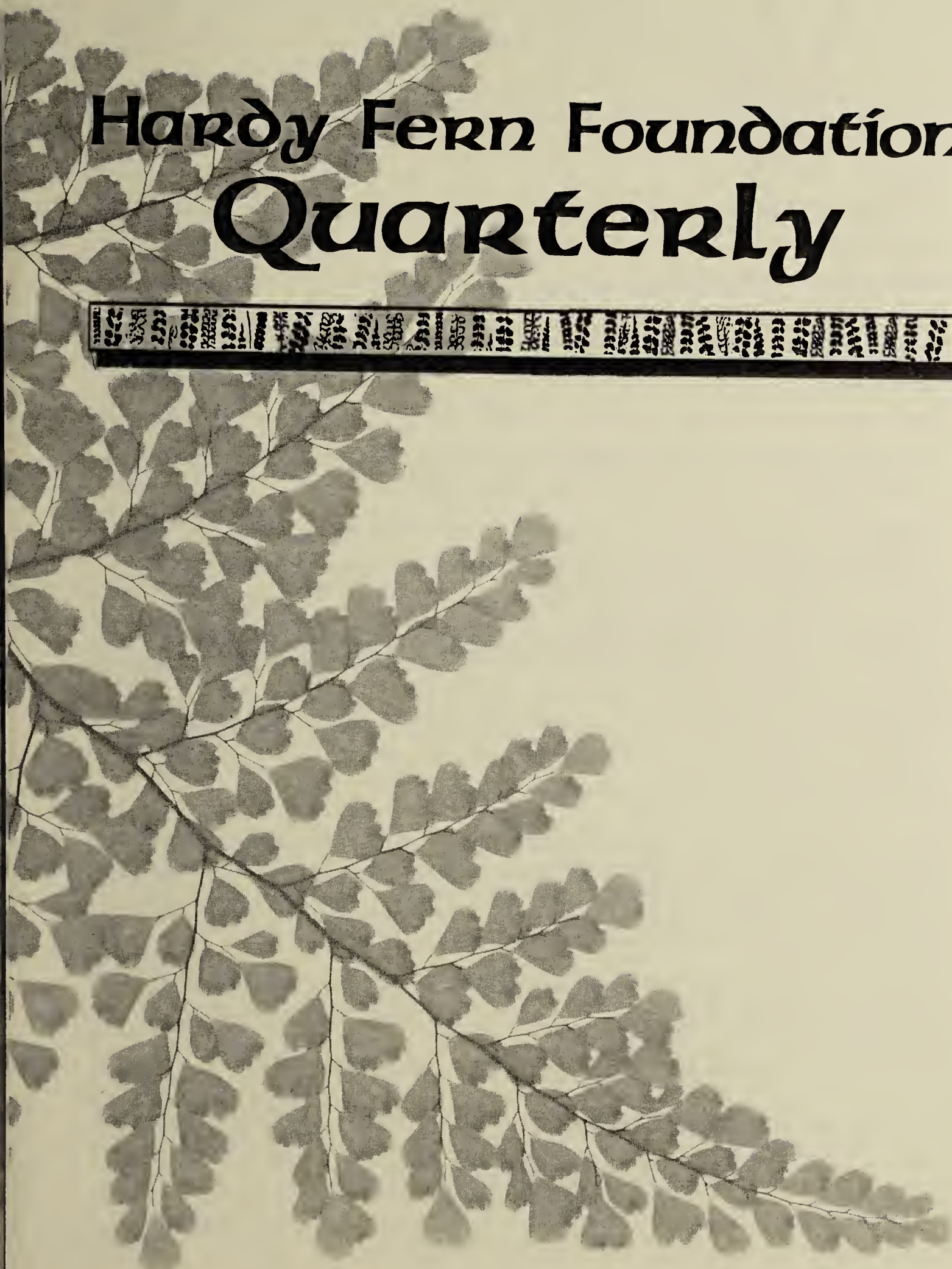
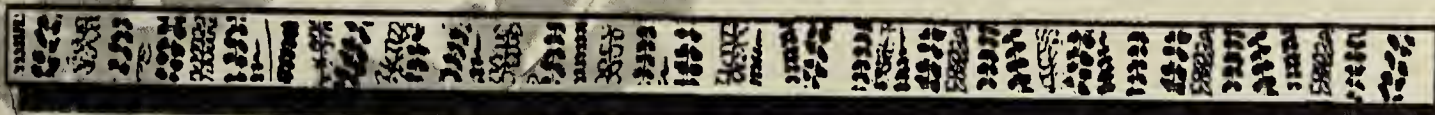


Hardy Fern Foundation Quarterly



THE HARDY FERN FOUNDATION

P.O. Box 166

Medina, WA 98039-0166

Web site: www.hardyferns.org

The Hardy Fern Foundation was founded in 1989 to establish a comprehensive collection of the world's hardy ferns for display, testing, evaluation, public education and introduction to the gardening and horticultural community. Many rare and unusual species, hybrids and varieties are being propagated from spores and tested in selected environments for their different degrees of hardiness and ornamental garden value.

The primary fern display and test garden is located at, and in conjunction with, The Rhododendron Species Botanical Garden at the Weyerhaeuser Corporate Headquarters, in Federal Way, Washington.

Satellite fern gardens are at the Stephen Austin Arboretum, Nacogdoches, Texas, Birmingham Botanical Gardens, Birmingham, Alabama, California State University at Sacramento, Sacramento, California, Coastal Maine Botanical Garden, Boothbay, Maine, Dallas Arboretum, Dallas, Texas, Denver Botanic Gardens, Denver, Colorado, Georgeson Botanical Garden, University of Alaska, Fairbanks, Alaska, Harry P. Leu Garden, Orlando, Florida, Inniswood Metro Gardens, Columbus, Ohio, Lewis Ginter Botanical Garden, Richmond, Virginia, New York Botanical Garden, Bronx, New York, and Strybing Arboretum, San Francisco, California.

The fern display gardens are at Bainbridge Island Library, Bainbridge Island, WA, Lakewold, Tacoma, Washington, Les Jardins de Metis, Quebec, Canada, University of Northern Colorado, Greeley, Colorado, and Whitehall Historic Home and Garden, Louisville, KY.

Hardy Fern Foundation members participate in a spore exchange, receive a quarterly newsletter and have first access to ferns as they are ready for distribution.

Cover Design by Willanna Bradner

HARDY FERN FOUNDATION QUARTERLY

QUARTERLY

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...REMINDER...

There are still spaces available
for this summer's **Feast in the East**.
For details contact John Scott at
BPS2005@aol.com
It should be a fantastic trip.

The Spore Exchange Needs You!

Please send your spores to our Spore Exchange Director:

Katie Burki
501 S. 54th St.
Tacoma, WA 98408

President's Message - Winter 2004/2005

Greetings. I hope that all of you have had a wonderful Holiday Season and Best Wishes for the New Year.

Temperatures here in the Pacific Northwest this 2nd. week in January have been a bit on the cool side with night temperatures dipping into the twenties and daily highs in the upper thirties. Here in my snowless lowland garden the ferns are deep into their winter dormant sleep. The shriveled brown blades set upon still upright wiry black stipes of *Adiantum aleuticum* contrast nicely against the backdrop of a group of *Dryopteris erythrosora* with their yellowish green fronds glistening in the light of the low sun beaming through the understory of the Douglas Firs. I softly brush back the forest duff to observe the brownish tightly coiled promises of spring covered in their coat of bristles and hairs. I gently sprinkle a bit of the duff back over them. I walk through my garden noticing other ferns and marveling at the remarkable differences of the tightly coiled crosiers that exist among the various species.

The Northwest Flower and Garden Show will be held from February ninth through the thirteenth at the convention center in Seattle. As usual HFF will be setting up an educational booth to inform the gardening public about ferns, fern gardening and the Hardy Fern Foundation. Fern curator/board member Michelle Bundy and Board member Becky Reimer will again take it upon them selves to design and set up the booth. It is always a challenge to give a little twist or new look to the booth. The show's theme is 'Greetings from Spring' and Michelle has informed me she has put a number of ferns in a warmer greenhouse so that unfurling ferns can be displayed. President Elect and board member Richie Steffen will be giving a presentation on ferns and fern gardening, which will be one seminar of the one hundred and fifteen scheduled during the run of the show. I always look forward to attending the show, easily filling an entire day, with observing the display gardens, strolling through the plant venders area checking out new plants, wandering through aisles of hundreds of garden venders and garden artists checking out their wares looking for unique items and ideas that I may be able to use, and meeting fellow gardening friends. The HFF is very pleased to have the Rotary Garden in Janesville, WI join us as a display garden. They already have an extensive collection of hardy ferns and will be featured in our Spring Quarterly Special Issue.

HFF is looking for ways to improve our communication with Display/Satellite Gardens and with members especially in the area of the evaluation of fern species being grown from all over N. America. Board member Jeanie Taylor is chairing this committee. A number of interesting ideas have come forth. Development of an extensive but user friendly website is one where members and satellite gardens can load fern evaluation data which can then be analyzed and then logged back on to the web site for information to anyone interested in the growing of ferns. Eventually recommended ferns with all pertinent information and their requirements can be published. Testing and evaluation of new fern species will be an integral part of this information.

Planning is already underway for the Fern Festival to be held in the first weekend in June, making sure we will have an extensive selection for sale. More on this in the next HFF quarterly.

Winter is the time to lounge back in the comfortable chair and plan for new additions to the fern garden and also to catch up on some pleasurable reading. Two new books that have come out this past year are ‘A Natural History of Ferns’ by Robbin Moran and ‘Tree Ferns’ by Mark Large and John Braggins. Moran’s book is entertaining and informative, and the book on tree ferns gives me a wishful musing and longing to see these remarkable and exotic plants in their own domain, and to again maybe try to grow a few of the very hardiest of the group in my own garden.

May this message find you in good health and spirits. Happy fern gardening.

Best regards,
John van den Meerendonk

NEW AMERICAN FERN SOCIETY T-SHIRTS!

- The American Fern Society is offering new T-shirts. The T-shirts are natural color 100% no-shrink Beefy T with an assortment of ferns (lifted from Carl Taylor’s *Ferns of Arkansas*) on the front along with the phrase “Frondly Persuasion”. The AFS logo is shown on the left sleeve.
- This limited edition treasure is available in sizes small through extra extra large for only \$15 each. (Mailing will cost \$3.50 for one shirt and \$1.00 for each additional shirt.) You can obtain your limited edition t-shirt by contacting: Sue Hollis, 3311 Gillham Road, Kansas City MO 64109-1749, ferngro@att.net. Please email me before sending a check to make sure your size is still available. *Make checks payable to Sue Hollis.*

New Members

David Bowman	Alan Kettler
Michael Bracken	Mary Anne Osborn
Lance Cerullo	Martin Rickard
Deborah Ferber, MSK Nursery	Amy Schmidt
J. Kendall Few	Rod White
Arlen Hill	Limberger Wilfried
Pamela Jordan	

B o o k R e v i e w

A Natural History of Ferns

Robbin C. Moran

Such fun!

You are in for a treat with this collection of Dr. Moran's tales from ferndom. Why is Robinson Crusoe's island rich in ferns? How did *Terpsichore* get its name? What separates the *Osmunda* sisters from all the other ferns? Why is the hybrid *Dryopteris celsa* – to take but one example – fertile, while others fail to procreate? Why do adder's tongues survive repeated collection?

I grow *Pleopeltis polypodioides*, the resurrection fern, on a mossy rock well north of its natural range. The speed with which it comes back to life fascinates. Here a question was, why does the desiccated frond roll inwards from the pinnae tips, what purpose does it serve? A neat series of experiments showed the frond doesn't regenerate through root uptake, but from rain trapped and channeled by the star-like scales on the lower surface (up-facing, now, due to rolling) into the lamina cells. Chronicling the experiments, between the 1920s and the 1980s, by three researchers testifies to the craft of our narrator.

Potato ferns have to be among the more astonishing acts of creation. And little is written about them. When you google *Solanopteris*, there are more results including Viagra than solid info devoted to this tuberous member of the *Polypodiaceae*. No doubt the inaccessibility of these epiphytes in the rain forest canopy has something to do with lack of data. But *Solanopteris* also is symbiotic with the fierce *Azteca* ants. Moran writes,

If you poke the fern, even slightly, ants rush out of the stems and swarm over your fingers and run up your wrists until they find a tender place to clamp onto vengefully. They did that to me ...

Several chapters illuminate the evolutionary history. I'd heard the term **fern allies** was no longer acceptable in polite company, monophyletically speaking, but it wasn't until he laid out the fossil and DNA evidence in *The Falsely Framed Fern Allies* that I understood why ferns are further from lycophytes than seed plants. A shocker!

Delicious is the right adjective for his frequent focus on oddities like the whisk ferns (no roots or leaves), the "green steel wool" of the Appalachian *Trichomanes intricatum* (misplacing its entire frond generation), and the Mesozoic hanger-on, *Dipteris conjugata*, looking more like a *Syneilesis* than any fern.

Illustration is generous – 145 line drawings or black and white photos and 26 color plates. Some chapters will be familiar to readers of the American Fern Society's *Fiddlehead Forum*, but

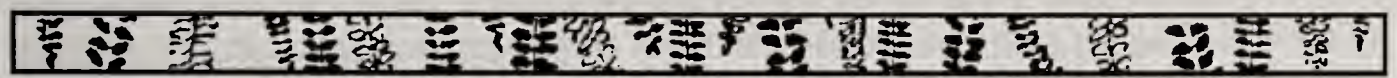


Dipteris conjugata
illustration by
Haruto M. Fukuda

with revisions and additions. Here is science writing at its best; one simply **must** have this book.

A Natural History of Ferns, Robbin C. Moran, 286 pp, index, bibliography.
Timber Press, Portland, 2004, ISBN 0-88192-667-1.

Reviewed by Tom Stuart
www.hardyfernlibrary.com



POLYSTICHUM STENOPHYLLUM

Narrow-Leaved Holly Fern

James Horrocks - Salt Lake City

This species name means literally "narrow-leaved" which is a most apt description for this prize from Asia. It is native to the Himalayas, particularly from central Nepal, Tibet, and northern India. It is also found in China and Taiwan but is entirely absent in Japan. It occurs at high elevations chiefly among rocks, the arching fronds reaching lengths of up to 18 inches. This species may be confused with several other *Polystichums* from the same region that are extremely narrow as well. *P. stimulans* is similar but the pinnae are more deeply bristle-toothed and holly-like. The lower most pinnate do not turn downward as in *P. stenophyllum*. *P. craspedosorum* from Manchuria, China, and Japan is similar as well but lacks the pronounced auricle at the base of each pinnae and is not as leathery as *P. stenophyllum*. In *P. craspedosorum* the sori are more pronounced with thick fleshy indusia and the rachis extends beyond the tip of the frond, tending to root into the soil. Conversely, the fronds of *P. stenophyllum* taper gradually to a point, although there is a proliferous bud on the rachis near the apex. *P. stenophyllum* has crossed with the more dainty *P. lachenense* to product *P. x hagenahii*. *P. stenophyllum* is a sexual diploid.

Description: The rhizome is erect to ascending, producing several fronds with relatively short stipes, clothed with ciliate scales that are broadly ovate and ending in a tail. The arching evergreen fronds are linear-lanceolate, once pinnate, and leathery to the touch. The extremely narrow fronds are only 1/2 to 1 inch wide and from 5 to 18 inches long. The pinnae are many, with forty or more pairs that are short rhomboid to ovate, serrate, and with a pronounced auricle at the base of each pinna on the acroscopic side. The lower 3 or 4 sets of pinnae are smaller, tending to tip downward, the



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Propagation of Ferns by Division With Special Emphasis on *Athyrium niponicum* 'Pictum'

Ralph C Archer
Shelbyville, KY

Several years after starting to garden, I learned that a large number of fern species are easily divided, thus providing new plants that are clones of the original. I also learned that some gardeners are reluctant to try dividing their ferns, fearing that they may seriously harm the plant. This article is for those who have not tried division. I hope they will come to understand that by taking reasonable care, a successful outcome can be achieved. The rhizome type and cultural needs of the ferns to be divided should be determined prior to dividing. This is necessary to determine how best to divide and grow the fern. Fortunately, there are several good books now available to the gardener that provide this information.

Ferns with upright or ascending crowns

Some ferns with upright or ascending crowns form new crowns (offsets) around the parent. *Matteuccia struthiopteris* has offsets that grow a significant distance away from the parent plant. These new plants can be dug and the stolen cut, without disturbing the parent. That makes this fern an easy one to divide and provides a large number of new plants over a relatively short time.

Many other ferns (*Dryopteris affinis* or *D. filix-mas* for example) have offsets that are very close or attached to the parent's crown. When dividing, I have found that it is important that the offset's rhizome plant material be intact after division and has as many roots as possible. It is best to remove the offset from the parent along with some of the connective tissue, or, if necessary, by leaving some of the parent's rhizome tissue on the offset. This seems to aid the survival of the new plant. Some authors have had success carefully digging around the offset and then removing it, leaving the parent plant still in the ground. I have found that digging and cleaning the fern before removal of the offset has resulted in a higher success rate. This seems to be a result of being able to see the junction while dividing, and being able to make better cuts between the parent and offset. Early spring division has provided the best results, as the spring growth seems to aid the healing of the cut.

Ferns with short creeping rhizomes

All ferns with short creeping rhizomes can be divided. From a gardeners viewpoint, there are three types of ferns having short creeping rhizomes. Many ferns make new clumps of fronds which are distinctly separated one from the other. In the case where there is sufficient distance, it is possible to separate the clump from the parent by driving a sharp spade down between them. The new plant can then be dug and detached without disturbing the parent. In the other case where the clumps are close together, it is best to dig the fern to make a dividing cut centered between the two clumps.

My experience has been that these ferns tolerate dividing at any time during the spring growing season. Waiting until the separation between the clumps of fronds is distinct makes this sort of division very easy. Other ferns with short creeping rhizomes, which do not have a distinct separation of clumps, are best dug. Being able to wash the fern

clean of dirt and then divide it, makes for divisions that retain as much of the plant structure as possible. It is often possible to gently pull the divisions apart and separate the roots without much root or rhizome damage. If it is necessary to cut the divisions apart, this method makes it possible to find the places where the separation cuts will be the smallest in area, doing the least damage to the plant. I have found early spring to be the best time to divide these ferns.

Some ferns such as *Polystichum acrostichoides* also have a branching rhizome. I prefer to divide this fern by digging it and then washing it so that it is possible to find the places where the rhizome has branched. Make sure roots have formed on the branch, then cut the branches off at the point where they join the main rhizome.

Division of *Athyrium niponicum*

A. niponicum's rhizome, with its multiple growing points, allows for a considerably different treatment when being divided. It is a fern that can provide a large number of new plants relatively quickly. After two to three years growth in good conditions, I have divided plants into eight or more ferns that could be planted in the garden, grown on in a shaded propagation bed, or potted.

I have found that the best time to divide *A. niponicum* has been early spring when the first few fiddleheads separate from the ground. The fern is dug and depending on the size, the clump is either placed on the ground or on a bench, with the growing side up.

When dividing a small fern on the bench, the fern can be cut into several pieces with a knife. I have found it very important for each division to have a decent piece of rhizome with several growing points and a good amount of roots.

When dividing a large fern, the fern can be placed on the ground and cut in half using a very sharp flat spade. The halves are placed cut side down and sliced. Both sides are checked to ensure that each slice includes growing points, roots and a piece of the rhizome. Trying not to damage the growing points and having as many roots as possible cannot be overemphasized. This will determine the quality of the divided fern for the first several years.

Good sized divisions from a mature fern can be directly planted in the garden, if desired. The planting site should have good drainage so that the soil is not soggy. The plant should be fed once, using a liquid fertilizer with a rooting hormone additive at half the recommended strength. The fern should be given sufficient water to keep the soil damp until the fern is established.

If being potted and the clump is large, it may be necessary to cut the slices from the center in half. The thickness of each slice should be adjusted so that the slices fit well into the pots. When potting, it is important to try to match the divisions to the pot so that they almost fill the pot. Leave sufficient space around the division for the potting mix so that the roots will have room to start regrowth. My best success has been with ferns potted with a mix of two parts of loam top soil with one part compost. The plants were fed only once, using a liquid fertilizer with a rooting hormone

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Propagation of Ferns by Division continued from page 7

additive at half recommended strength when first potted. The pots should be kept in the shade and the potting mix kept moist but not soggy, until growth re-starts.

General Treatment of Fern Divisions

I have found the following procedure to be most successful for digging the ferns. If the ground is dry, the fern should be watered well and time be given for the water to penetrate the ground deeply and evenly. A fork should be used to dig the fern. This seems to be the best way to assure that the plants retain as much of the root system as possible.

After division, any damaged fronds or fiddleheads should be trimmed off just above the point where they emerge from the rhizome. A rule of thumb is to remove a total of approximately half of the fronds that have started growth by removing all the damaged ones first and then cutting enough other fronds, as necessary, to make the one-half total. The fronds should be thinned as uniformly as possible over the whole growing area, not just one location.

My best results have come from planting the parent and individual divisions from close crown offset divisions in suitably sized pots, using a sterile, soil-less potting mix. A mix of one part perlite to three parts soil-less potting mix is used for the potting soil. The ferns are fed with a half-strength solution of a liquid fertilizer with a rooting hormone additive when potted and bi-monthly thereafter until good growth resumed. "Suitably sized" means that the division should fill most of the pot leaving enough space for the roots to resume growth in the potting mix.

Divisions from short creeping rhizome ferns, that have less than half a dozen fiddleheads and/or fronds after digging, dividing and trimming, should be potted as above until growth actively resumes. This includes the parent plant. Those with only one cut surface and more than a half dozen fiddleheads and/or fronds can be planted in a garden location in the ground.

The planting area should have good drainage so that the soil does not stay soggy. Otherwise, it is best to pot the plant until growth resumes and the cut surface has had a chance to heal. All pots should be placed in a shady area and keep damp, not soggy, until growth returns. The use of a liquid fertilizer at half strength, feeding when potted and then bi-monthly until good growth resumes, has given the best results.

When plants which are potted in gallon size pots resume growth, the plant can be put in its permanent garden location. Those in smaller pots should be grown on in pots for a season, but I have found it best to repot, as soon as growth starts, using a potting soil tailored to the ferns. The addition of ground limestone to the potting mix is necessary to assure proper growth of the lime-loving ferns. Some rock ferns require soil that contains a sharp grit which drains very well. The wood ferns will benefit from a soil that contains a good amount of compost along with a well-draining loam soil. If a soil-less potting mix has to be used, it should be amended to simulate the soil favored by the fern, i.e. lime or garden sulfur if needed, grit added for sharp drainage, etc. A light addition of a slow release fertilizer to the soil can be made at this time or the fern can be fed using a half-strength liquid fertilizer solution and then again bi-monthly. I have not

found it necessary to feed ferns repotted in soil-based potting soil after the initial feeding at the time of re-potting.

Some authorities recommend treating the wounded surfaces with agricultural lime to seal them and prevent infection. I have no experience with this treatment. I originally dusted the cuts with a powdered fungicide. When it was no longer available, I potted or planted the ferns without any treatment and saw no difference in success rate. This is probably due to using the soil-less mix and giving the ferns time to heal the cut naturally before exposing the cut surface of most ferns to soil. I have not had problems replanting *A. niponicum* divisions directly in the garden or in pots using a garden soil-compost mixture. It appears that this fern is resistant to soil-born disease, at least in this area.

Experiences while growing *A. niponicum* 'Pictum' Divisions

I first planted five *A. niponicum* 'Pictum' ferns about twenty years ago. This fern grows well in our climate of hot summers and high humidity and is the only fern to naturalize in a large number of places around the yard. It is a very hardy, very good garden fern, which makes a nice display either as an individual plant or in a mass planting. While the jury is still out on the value of many of the recently named cultivars, none grown here seem sufficiently different from the cultivar 'Pictum' to justify a different cultivar name, based on two full years of growth.

It has been my experience, confirmed by other growers, that this fern tends to be unstable. As plants age, some have a tendency to revert back to the color of the species. These species type fronds seem to be longer and more vigorous than those of the cultivar. As a result, they may make a two-toned fern that looks unkempt. In order to keep a large clump from continuing to revert back over the course of time, it becomes necessary to cut out the areas of the rhizomes, where these reversions occur. Some ferns also occasionally sported fronds which have very different color tones with different growth habits and pinnae shapes. When separated from the parent, many made lovely garden ferns. However, they required more attention to keep them looking uniform, as they were more variable over time than the parent.

In spite of being clones, many divisions are not uniform in color or form after growing on in pots. There is a spectrum of differences in appearance similar to those seen in a group of plants raised from spore, but to a lesser degree. In most cases, fern divisions from the same plant, which did look similar when grown in gallon pots, lost this similar appearance as mature ferns when planted in a variety of locations.

My experience has been that cultural conditions have a significant effect on the color of this fern when mature. The fern with the best color of any in my yard was one of eight divisions. It was planted in a very shaded location, which was under a high pruned shrub on the north side of several large maple trees near a creek. It did see periods of relatively bright indirect light as the location was open to the north, but the fern was always in shade. The soil usually felt dry if dug two to three inches deep, but the soil surface was usually damp due to a supply of water in the form of seepage down a slope to the creek. Clones planted in wooded forest or open areas under high shade had longer frond length

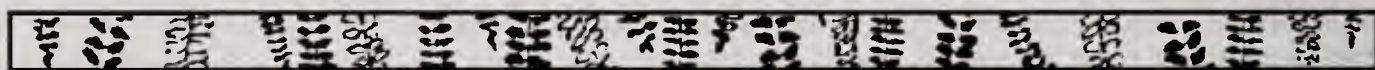
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Propagation of Ferns by Division continued from page 9

and a more vertical character, but less intense color. The clones with the poorest color were two that were planted along the creek. They were in full sun, from about ten AM to one PM and were growing in clay loam soil that was wet for significant periods of time.

Observations of ferns in several other gardens confirm my experience that the color that these ferns develop and retain over time after planting is influenced by the intensity of available light, available moisture and a need for good drainage. If you are having problems with the color of your Japanese painted ferns, you might try, if possible, to provide conditions of shade with bright indirect light, good drainage and regular water as needed.

The division of ferns and other suitable woodland plants is highly recommended to those who want to establish a natural area as I did, without having to pay a sizable amount of money for plants. While it took several years to build up the stock, it has been a rewarding experience. It was a wonderful way to learn about fern needs and how to grow your own. I learned that the divisions I planted were the most special ferns in my yard. In a real sense, they became my garden children.



POLYSTICHUM STENOPHYLLUM continued from page 4

basal pinnae smallest and tipping in the extreme. The frond tapers to a gradual sharp point and often bears a proliferous bud on the rachis near the tip. The sori are arranged in a simple row on either side of the costa, curving up into the auricle on the acroscopic side of the pinnae. The indusium is entire.

Culture: This quite rare Asian native is best grown in a shaded rock garden under medium light conditions. The narrow evergreen fronds are rather unique and are a striking contrast to most other ferns in the garden. *P. stenophyllum* is hardy to zone 6. Rickard mentions that the medium green fronds have a "slightly pinkish hue" to them. Its rarity has made it difficult to obtain. (The author is still anxious to try it) Mickel ranks it as "moderate" in its ease of cultivation. It is certainly well worth a try.

References:

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- Ferns for American Gardens*, 1994, John Mickel, MacMillan Publishing Co. New York.

The Amazing Horsetail

Jim Long

Rough Horsetail
Equisetum hyemale

For years, a friend of mine called my clump of horsetail “asparagus”. When she spoke of it, we were always sitting in rockers on the curving herb porch of my herb shop, looking out over the culinary and medicinal herb beds, with the asparagus bed in the background. She would point and say, “Jim, your asparagus always looks perfect. What do you do?” and I would feel complimented that my small asparagus bed impressed her so.

Finally, one day, as we walked along the path between the culinary and medicinal beds, she stopped beside the horsetail and said, “I think your asparagus is fake. It always looks the same regardless of the time of year I visit.” All those years when she complimented my asparagus, she was seeing the clump of equisetum! I was stunned that someone could be so ignorant.

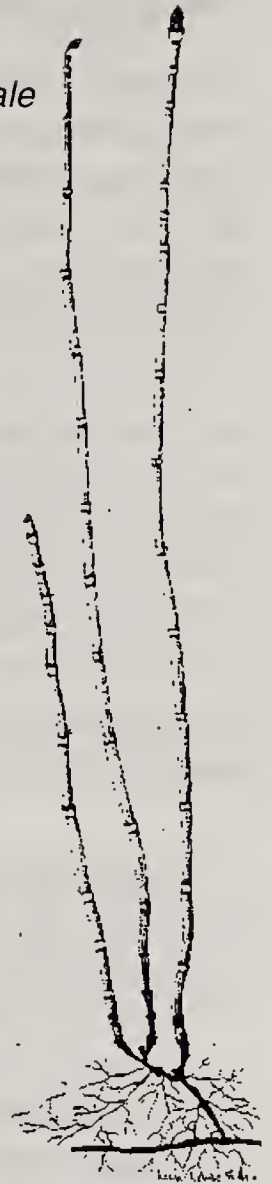
Horsetail (*Equisetum hyemale*), also known as shavegrass or scouring rush, is an ancient herb. Herb references say that this plant hasn’t changed in eons and probably looks now just as it did in the time of dinosaurs.

I do a good deal of research into old herbals and folk remedy books and have noticed that horsetail was always listed as a folk treatment for kidney disorders. However, in *Field Guide to Medicinal Plants*, the authors, Steven Foster and James A. Duke, list it as sometimes toxic to livestock and questionable for internal use by humans because it possibly disturbs thiamine metabolism. “Kidney ailments,” in folk medicine, could encompass a variety of illnesses, none of which should be treated by any cure-all method. Kidney stones, urinary bleeding, kidney cysts, all could have come under the catch all, “kidney ailments.” The suspected danger, which hasn’t been proven, of interrupting thiamine metabolism, is reason enough to not use this plant internally as a folk remedy today.

Several sources list horesetail as a natural fungicide. I’ve used it successfully as a treatment for black spot and powdery mildew on roses. I add one cup of chopped horsetail to six cups of boiling water, boil for five minutes, then allow the tea to cool overnight. I strain it well, first through a tea strainer, then through a coffee filter, then put it in a spray bottle. In damp weather when mildew and fungus problems begin, I spray the roses twice weekly. (This mix also works well on beebalm which gets powdery mildew in summer).

I surmised that if horsetail is a good plant fungicide, it might also be useful on skin. I have several bath blend formulas that include shavegrass/horsetail in them and find that people like the way the herbs make their skin feel. And it’s perfectly safe to use externally.

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The Amazing Horsetail continued from page 11

I created a formula for a Sore Muscle Bath blend. I recommend it for any kind of sore muscle problems, from pulled muscles to sprains and broken bones. There are two ways of applying the herb mixture. Either 1-2 cups in a muslin bag (or clean sock), tied closed, then pour 3 cups of boiling water over. Let it soak in the hot water while you are filling a bathtub with water. Then pour the bag and the herb bath tea, into the water and soak your body or affected part.

The alternate method for soaking a limb or injured muscle, is to put 1-2 cups of the herb bath mix into a muslin drawstring bag or cloth bag, pour the boiling water over and let it steep for 5 minutes. Wring out the cloth bag and apply it hot, directly to the injured area. Re-heat in a microwave and apply it several times throughout the day. The herbs help draw out the pain, the horetail/shavegrass is soothing to the skin and the heat helps push out the soreness. My tennis player friends love this mix! Here's my formula for Sore Muscle Bath Blend (which comes from my book, ***Great Herb Mixes You Can Make***, \$10.95):

- 3 cups shavegrass
- 3 cups spearwing
- 1 cup calendula flowers
- 7 cups rosemary
- 2 cups marjoram
- 2 cups chamomile
- 1 cup catnip
- 1 cup lavender
- 1 four pound box of epsom salts

Mix all ingredients well and store in air-tight container.

In addition to the above uses, horesetail is an interesting landscape plant and well worth including in the garden, but beware, it can quickly become invasive. It will grow out of it's bed, under walkways, across driveways and quickly becomes a pest if you are not vigilant. I grow mine in a five-gallon nursery pot with the bottom left in. I fill the pot with soil and bury it halfway in a small water pool. The plant will tolerate dry condtions, or will grow partially submerged in water. It will grow in almost any hardiness zone. The flattened stems, if dried a few hours, make excellent nail files in an emergency and I've read references to the plant being used as sandpaper on wood as well as metal in ancient times.

Horsetail is a good example of an old folk remedy that doesn't work for the purpose it's remembered, yet has some very beneficial uses today. It has a place of honor in my medicinal beds and always draws attention from visitors. From a distance, on a lazy afternoon, to a non-plant person, it might actually resemble stalks of asparagus, ready to be picked if they really used their imagination.

Jim Long is the owner of Long Creek Herbs. Bulk dry herbs, Jim's books on herbal subjects and his own formula products can all be found at www.Longcreekherbs.com.

The Fern Garden at SFASU – Nacogdoches, Texas

Roger Hughes, Volunteer

<http://www.sfasu.edu/ag/arboretum/index.htm>

In the early eighteenth century in England where rocks were scarce, stumps were used in gardens in place of rocks. These were called Stumperies. Stumps were dug in the forest and planted up side-down in the gardens. The type, size and shape of the stumps were considered in the design to create texture, structure and dimension.

When the Prince of Wales purchased Highgrove about twenty-five years ago he incorporated a Stumpery in his garden. He requested that it be planted with ferns, hellebores and hostas. The tall plants were placed around the larger stumps and allowed to grow up through the roots.

In a woodland garden this creates a beautiful backdrop when the fern fronds intermingle with the various shades of brown and the rough shape of the roots. With this in mind we decided to build a stumpery in the fern garden.

The new Stumpery in the Azalea Garden is almost completed. The water system and sprinkling heads have been tested and are ready to go. All of the dirt work and setting the stumps in place is completed. A six-inch layer of mulch has been added and worked into the top layer of soil.

All of the two hundred and fifty plants now planted in the Stumpery have been donated. Some of the plants came from as far away as Birmingham, Alabama. These were donated by Sarah & Ralph Johnson. Both Sarah and Ralph are very active volunteers at the Birmingham Botanical Garden. Besides volunteering, they enjoy growing ferns from spores. Another very nice donation came from Mary Elliott in Ponchatoula, Louisiana. Mary is the owner and operator of Fronderosa, which sells wholesale landscape ferns and plants for the Gulf South. She has a large collection of ferns plus a big variety of shade loving plants. Roger and Shirley Hughes donated the balance of the plants. The following is a list of the plants that have been planted

Acer japonicum ‘Giant Leaf’

Adiantum capillus-veneris

Adiantum hispidulum

Adiantum raddianum ‘Fragrans’

Adiantum tenerum ‘Scutum Roseum’

Amorphophallus bulbifer

Amorphophallus konjac

Amorphophallus henryi

Arisaema triphyllum

Cyrtomium falcatum

Dryopteris erythrosora

Dryopteris kuratae

The Fern Garden at SFASU continued from page 13

Dryopteris ludoviciana

Dryopteris namegatae

Dryopteris stewartii

Dryopteris X australis

Galium odoratum

Hosta 'Blue Angel'

Hosta 'Blue Cadet'

Hosta 'So Sweet'

Onoclea sensibilis

Onychium japonicum

Osmunda cinnamomea

Osmunda regalis

Pellaea falcata

Pinellea cordata

Pinellea pedatisecta

Pinellea tripartite

Polystichum polyblepharum

Pteris actinopteroides

Pteris cretica 'Mayii'

Pteris cretica 'Rowerii'

Pteris ensiformis 'Evergemiensis'

Pteris vittata

Saxifraga stolonifera

Selaginella 'Wordoff'

Thelypteris kunthii

We are working on creating more shade for the south edge of the Stumpery. We want to reduce the hot midday sun. Ferns and other shade loving plants are now suffering from the sun. Moving a few plants and planting two fast growing trees should solve this problem.

We will be changing our signage in both the HFF Satellite Garden and the Stumpery, so we will be consistent with the Azalea Garden.

The total Azalea Garden, which includes the HFF Satellite Garden and the Stumpery, now has hard packed asphalt paths and roads. This also makes the Azalea Garden handicap compatible. We now have an entrance from University Avenue directly into the Azalea Garden's new parking lot.

Susan Williams is now our new Fern Curator. Susan has already started the new signage and is taking full responsible of our ferns. I will continue to be a volunteer and help Susan.



*Stumpery
under
construction*



BPS/HFF Germany Fern Excursion June-July 2006

First Circular – January 2005

Dr. Berndt Peters is planning a fern tour to Middle, North and Eastern Germany, for probably June 30 – July 09. The number of participants will be limited to 20 due to the small size of a few of the private gardens.

Excursion: The participants will see a wide range of gardens, all characterized by their ferns, but of very different size and style. Some of them also include interesting collections of other plants. We will visit the famous arboretum Ellerhoop near Hamburg, see the fern nursery Wiederstein near Koblenz and study ferns in their natural habitats near the Rhine, in the Elbsandsteingebirge and possibly in the mountains of the Harz.

In the afternoons and evenings we will have the opportunity to have a look at old German towns. (Because this is the first announcement of the excursion some changes of the plan may become necessary.)

Housing: All accommodation will be in good middle-class hotels. Rooms will be non-smoking double rooms unless you indicate otherwise. Since most of the participants will probably be coming from the UK or the USA, hotel reservations can be made for the day before the tour starts and after the farewell dinner.

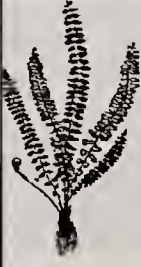
Meals: Breakfast and lunches will be included in the payment. All breakfasts will be either continental-style or a buffet at the hotel. Lunch boxes will be provided for midday. Dinners in the evening will be available in the hotel or within walking distance.

Trip Details: We will be travelling by charter bus. Participants will be expected to travel with the group in the bus.

Clothing: The climate in Germany is similar as the British climate. In June / July it can be rather hot but there can also be rainy periods. Therefore a range of suitable clothing would be useful.

For further planning it would be very valuable to have an idea about the number of interested fern enthusiasts. Therefore, if you are interested in the fern excursion to Germany, please send a short message with your address via email or letter to berndtpeters@foni.net or Dr. Berndt Peters, Schleswiger Str. 83, D-24392 Suederbrarup, Germany.

As soon as we have an idea about the number of interested people we will plan in more detail and can then fix the costs of the tour.



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